Inventor: Nitesh Ratnakar Serial No.: 10/711,859 Filed: October 11, 2004 Title: Dual View Endoscope

Page 2

## IN THE CLAIMS:

Please amend the claims as follows:

- 1. (Currently Amended) An endoscope, comprising: that provides both a first lens for receiving a first image in a forward direction; and rear view a second lens for receiving a second image in a second direction, the second direction being at a predetermined angle to the first direction.
- 2. (Currently Amended) An endoscope of claim 1, wherein it comprises of oncor more further comprising a rear view module modules for housing the second lens.
- 3. (Currently Amended) The endoscope of claim 1, wherein the first and second lenses receive the first and second images it is capable of providing forward and rear view simultaneously.

## 4. (Cancelled)

- 5. (Currently Amended) The endoscope of claim 2, wherein the rear view module is attached to the endoscope by one of a group of mechanical articulation consisting of means of a hinge joint, a ball joint, and a rolling joint or any other mechanical articulation.
- 6. (Currently Amended) The endoscope of claim 2 [where] <u>further comprising a shaft</u> <u>for receiving the first lens therein and wherein</u> the rear view module is attached to the side of the <u>shaft endoscope</u>.

Inventor: Nitesh Ratnakar Serial No.: 10/711,859

Filed: October 11, 2004

Title: Dual View Endoscope

- 7. (Currently Amended) The endoscope of claim 2 [where] wherein the rear view module is attached to a front end of the shaft the front of the endoscope.
- 8. (Currently Amended) The endoscope of claim 2, wherein the rear view module is embedded in the shaft endoscope.
- 9. (Currently Amended) The endoscope of claim 2, wherein the rear view module passes through a channel in the <u>shaft endoscope</u>.
- 10. (Currently Amended) The endoscope of claim 2, <u>further comprising an actuator</u> operatively connected the rear view module for wherein the endoscope has one or more actuators that control the movement of <u>moving</u> the rear view module.
- 11. (Cancelled)
- 12. (Currently Amended) The [rear view module] <u>endoscope</u> of claim <u>1</u> 2, wherein the second <u>rear image</u> lens <u>is operatively</u> is connected to an image processor.
- 13. (Currently Amended) The [rear view module] endoscope of claim 1 2, further comprising a display screen for displaying the first and second images wherein the image from the image lens is displayed on a display screen such as a computer monitor.

Inventor: Nitesh Ratnakar Serial No.: 10/711,859 Filed: October 11, 2004

Title: Dual View Endoscope

Page 4

- 14. (Currently Amended) The <u>endoscope</u> rear view module of claim 1 2, <u>further</u> comprising wherein the image from the image lens is viewed through an eyepiece <u>for</u> viewing the first and second images.
- 15. (Currently Amended) The <u>endoscope</u> rear view module of claim <u>1</u> 2, wherein it eontains <u>further comprising</u> one or more rear illumination bulbs <u>for illuminating an area adjacent to the second lens</u>.
- 16. (Currently Amended) The <u>endoscope</u> rear view module of claim 15 2, wherein the <u>one or more</u> rear illumination <u>bulbs are bulb is</u> connected to a light source.

Claims 17-22 (Cancelled)

- 23. (Withdrawn) An endoscope comprising more than one instrument channels.
- 24 (Withdrawn) The instrument channel of claim 23 wherein one or more channels are interconnected.
- 25. (Withdrawn) The instrument channel of claim 23 wherein each channel is independent of another.
- 26. (Withdrawn) The instrument channel of claim 23 wherein there is a valve to control the passage from one channel to another.

Inventor: Nitesh Ratnakar Serial No.: 10/711,859 Filed: October 11, 2004

Title: Dual View Endoscope

- 27. (Withdrawn) An endoscope comprising more than one air/water channel.
- 28. (Withdrawn) The air/water channel of claim 27 wherein one or more channels are interconnected.
- 29. (Withdrawn) The air/water channel of claim 27 wherein each channel is independent of another.
- 30. (Withdrawn) The air/water channel of claim 28 wherein there is a valve to control the passage from one channel to another.
- 31. (Withdrawn) An endoscope comprising more than one image lens.
- 32. (Withdrawn) The image lens of claim 31 wherein it widens the field of vision.
- 33. (Withdrawn) The endoscope of claim 31, wherein it contains more than one forward image lens.
- 34. (Withdrawn) The image lens of claim 33, wherein the forward image lens is connected to an image processor.
- 35. (Withdrawn) The endoscope of claim 31, wherein image from the forward image lens is displayed on a display screen such as a computer monitor.

Inventor: Nitesh Ratnakar

Serial No.: 10/711,859 Filed: October 11, 2004

Title: Dual View Endoscope

Page 6

36. (Withdrawn) The endoscope of claim 31, wherein image from the forward image lens is viewed through an eyepiece.

- 37. (Withdrawn) An endoscope comprising more than one illumination bulb.
- 38. (Withdrawn) The endoscope of claim 37, wherein it contains more than one forward illumination bulb.
- 39. (Withdrawn) The endoscope of claim 37 where the forward illumination bulb is connected to a light source.
- 40. (New) The endoscope of claim 2 wherein the rear view module is adjacent to the outer periphery of the first lens, at least of portion of the rear view module movable between a first position and a second position wherein the second image lens receives images in the second direction.
- 41. (New) The endoscope of claim 40 wherein the predetermined angle is approximately 180 degrees.
- 42. (New) The endoscope of claim 40 further comprising an actuator for controlling movement of the rear view module between the first and second positions.

Inventor: Nitesh Ratnakar

Serial No.: 10/711,859 Filed: October 11, 2004

Title: Dual View Endoscope

Page 7

43. (New) The endoscope of claim 40 wherein the actuator includes first and second wires operatively connected to the second image lens, wherein tension on the first and second wires controls movement of the second image lens.

- 44. (New) The endoscope system of claim 40 wherein the actuator includes a biasing structure in engagement with the rear view module, the biasing structure urging the rear view module towards the second position.
- 45. (New) The endoscope system of claim 40 wherein the actuator includes an inflatable bladder in engagement with the rear view module, wherein inflation of the bladder urges the rear view module towards the second position.
- 46. (New) The endoscope system of claim 40 wherein the rear view module is pivotable between the first position and the second position.
- 47. (New) An endoscope system for examination of a hollow body component, comprising:

an endoscope having an outer periphery and a distal end housing a first image lens, the first image lens receiving images in a first direction; and

a rear view module adjacent the outer periphery of the endoscope and including second image lens, at least of portion of the rear view module movable between a first position and a second position wherein the second image lens receives images in a second direction at an angle to the first direction.

Inventor: Nitesh Ratnakar

Serial No.: 10/711,859 Filed: October 11, 2004

Title: Dual View Endoscope

- 48. (New) The endoscope system of claim 47 wherein the angle is approximately 180 degrees.
- 49. (New) The endoscope system of claim 47 further comprising an actuator for controlling movement of the rear view module between the first and second positions.
- 50. (New) The endoscope system of claim 49 wherein the actuator includes first and second wires operatively connected to the second image lens, wherein tension on the first and second wires controls movement of the second image lens.
- 51. (New) The endoscope system of claim 49 wherein the actuator includes a biasing structure in engagement with the rear view module, the biasing structure urging the rear view module towards the second position.
- 52. (New) The endoscope system of claim 49 wherein the actuator includes an inflatable bladder in engagement with the rear view module, wherein inflation of the bladder urges the rear view module towards the second position.
- 53. (New) The endoscope system of claim 47 wherein the rear view module is pivotable between the first position and the second position.

Inventor: Nitesh Ratnakar Serial No.: 10/711,859

Filed: October 11, 2004 Title: Dual View Endoscope

Page 9

54. (New) An endoscope, comprising:

a first lens for receiving a first image in a forward direction;

a shaft for receiving the first lens therein;

a second lens for receiving a second image in a second direction, the second direction being at a predetermined angle to the first direction; and

a rear view module operatively connected to the shaft for housing the second lens.

- 55. (New) The endoscope of claim 54 wherein at least of portion of the rear view module is movable between a first position and a second position wherein the second image lens receives images in the second direction.
- 56. (New) The endoscope of claim 55 further comprising an actuator operatively connected the rear view module for controlling movement of the rear view module.
- 57. (New) The endoscope of claim 56 wherein the actuator includes first and second wires operatively connected to the second image lens, wherein tension on the first and second wires controls movement of the second image lens.
- 58. (New) The endoscope system of claim 56 wherein the actuator includes a biasing structure in engagement with the rear view module, the biasing structure urging the rear view module towards the second position.

Inventor: Nitesh Ratnakar Serial No.: 10/711,859

Filed: October 11, 2004 Title: Dual View Endoscope

- 59. (New) The endoscope system of claim 56 wherein the actuator includes an inflatable bladder in engagement with the rear view module, wherein inflation of the bladder urges the rear view module towards the second position.
- 60. (New) The endoscope system of claim 54 wherein the rear view module is pivotable between the first position and the second position.
- 61. (New) The endoscope of claim 54 wherein the second lens is operatively connected to an image processor.
- 62. (New) The endoscope of claim 54 further comprising a display screen operatively connected to the first and second lenses for displaying the first and second images.
- 63. (New) The endoscope of claim 54 further comprising an eyepiece operatively connected to the first and second lenses for viewing the first and second images.
- 64. (New) The endoscope of claim 54 further comprising one or more rear illumination bulbs for illuminating an area adjacent the second lens.
- 65. (New) The endoscope of claim 64 wherein the one or more rear illumination bulbs are connected to a light source.
- 66. (New) The endoscope of claim 54 wherein the predetermined angle is approximately 180 degrees.